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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,281	04/20/2004	Masanao Furukawa	D-1598	2638

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EXAMINER

KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
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3753

MAIL DATE	DELIVERY MODE
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03/31/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/827,281

Applicant(s)

FURUKAWA, MASANAO

Examiner

Ramesh Krishnamurthy

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

This office action is responsive to communications filed February 21, 2008.

Claims 8 - 10 are pending.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 10 recites the limitation "said one of the flow amount and the pressure" that lacks proper antecedent basis. It should be noted that the parent claim 8 recites "flow amount and pressure". Thus Claim 10 is confusing in that it is in direct conflict with the parent claim that recites the apparatus as performing both pressure and flow control.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoji (US 5,952,556) in view of Statler (US 5,146,941).

Shoji discloses (Fig. 2, for example) a gas chromatograph with a fluid control assembly for controlling flow and/or pressure of gas, said fluid control assembly comprising a flow path, a control valve (5), a pressure sensor (21) connected to the flow path in a gas chromatograph for the purpose of ascertaining the pressure thereof of the gas flowing therethrough and a differential pressure sensor (4) for measuring the

pressure drop across the flow resistance (3). Control means (9) is disclosed that is connected to the control valve, the differential pressure sensor and the pressure sensor for the purpose of controlling the flow and/or pressure through the flow path. It is noted that the instant claims recite pressure control only in terms of functional language. Shoji has all the structural elements required to perform the recited function of both pressure and flow control and thus is capable of performing the recited function of both pressure and flow control.

The patent to Shoji discloses the claimed invention with the exception of explicitly disclosing the control valve to be disposed upstream of both the first pressure sensor and the flow resistance and the control valve.

Statler discloses a flow control arrangement wherein a control valve (18) is disposed upstream of both first pressure detecting means (26) and a resistance (22) for the purpose of providing flow control over a wide range (Col. 4, lines 29 – 34).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have disposed the control valve in Shoji upstream of the flow resistance and the first pressure sensor for the purpose of providing flow control over a wide range, as recognized by Statler.

Regarding claim 9, it is noted that forming a differential between the differential pressure signal and the pressure measurement from the other pressure sensor is a functional limitation that the control means (9) is capable of.

In regard to claim 10, it should be noted that it attempts essentially recite that the apparatus performs either flow or pressure control and thus is in direct conflict with the parent claim that recites the apparatus as performing both pressure and flow control.

Response to Arguments

6. Applicant's arguments filed February 21, 2008 have been fully considered but they are not persuasive. Applicant's argument is that Shoji discloses only flow control and not both flow and pressure control. In response, it is noted that the instant claims recite pressure control only in terms of functional language. Shoji has all the structural elements required to perform the recited function of both pressure and flow control and thus is capable of performing the recited function of both pressure and flow control. In regard to claim 10, it should be noted that it attempts essentially recite that the apparatus performs either flow or pressure control and thus is in direct conflict with the parent claim that recites the apparatus as performing both pressure and flow control.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 3753

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson, can be reached on (571) 272 – 4887. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 – 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ramesh Krishnamurthy/

Primary Examiner, Art Unit 3753